

rejection. For at least the reasons herein, Applicant respectfully requests withdrawal of the rejections, and allowance of the claims.

An exemplary, non-limiting embodiment of the presently claimed invention is directed to a second element that inputs diagnosis results from first elements, and discriminates each of the diagnosis results into a majority group or a minority group as a faulty first element, as recited in claim 1. As recited in claim 12, the method of the presently claimed invention includes discriminating each of the diagnosis results into a majority group or minority group; and determining the first element having a diagnosis result in the minority group as a faulty first element. With the claimed second element of claim 1 and the claimed discriminating and determining steps of claim 12, the present invention necessitates at least the same self diagnosis execution. Applicant notes that the claimed application of the diagnosis result is a novel feature of the present invention.

On the other hand, Cutler discloses a directed-graph model and a comparison model (i.e., an undirected-graph model) for system level diagnosis of processors or cells. The Examiner acknowledges that Cutler does not disclose discriminating each of the diagnosis results into a majority group or a minority group, and determining the first element having a diagnosis result in the minority group as a faulty first element. (see March 26 2003 Final Office Action, page 2, lines 21-25).

To cure this acknowledged deficiency of Cutler, the Examiner proposes to combine Okamoto into Cutler. However, Applicant respectfully submits that this proposed combination fails to cure the admitted deficiencies of Cutler for at least the following reasons.

Applicant respectfully submits that Okamoto, which is cited by the Examiner to overcome the above deficiency of Cutler, discloses a processing board, a computer, and a fault recovery method for the computer. Applicant previously submitted that a majority circuit of Okamoto is not used with diagnosis results of self diagnoses by processing units 1-1, 1-2, 1-3 (please refer to Amendment Under 37 C.F.R. § 1.111, filed July 25, 2002).

However, in response to Applicant's arguments, the Examiner asserts that column 50, lines 19-32 and 57-63 of Okamoto disclose the second element of the present invention. Applicant respectfully disagrees with this characterization of Okamoto.

Accordingly, Applicant respectfully submits that Okamoto, as cited by the Examiner, fails to teach or suggest the claimed combination of features in the present invention. For example, but not by way of limitation, in Okamoto et al., the majority circuit inputs signals during normal operation from the processing units, compares those input signals, and selects one of those signals as a majority signal. Further, the majority circuit of Okamoto recognizes an existence of a faulty processing unit among the processing based on the comparison result, as distinguished from a diagnosis result. To perform the executions, the processing units must always synchronize each other and execute the same operation every cycle in the normal operation. Self diagnosis is executed in the isolated faulty processing unit under single operation. The normal processing units analyze the diagnosis result and judge if the faulty processing unit is repairable or not, based on the diagnosis result.

Thus, the diagnosis result is input to the normal processing units, but not to the majority circuit. Therefore, Applicant respectfully submits that the claimed diagnosis result has nothing

to do with the majority circuit. Further, even the normal processing units do not input a plurality of the diagnosis results.

Applicant respectfully submits that the proposed combination of Cutler and Okamoto clearly does not teach or suggest discriminating each of the diagnosis results into a majority group or a majority group as the faulty processing unit. Thus, Applicant respectfully submits that Okamoto et al. neither teaches nor suggests the claimed second element or the discriminating and determining steps of the present invention, as recited in claims 1 and 12.

Applicant also respectfully submits that the dependent claims are allowable for at least the same reasons as the independent claims from which they depend.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Response Under 37 C.F.R. § 1.116
U.S. Appln. No. 09/357,990

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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